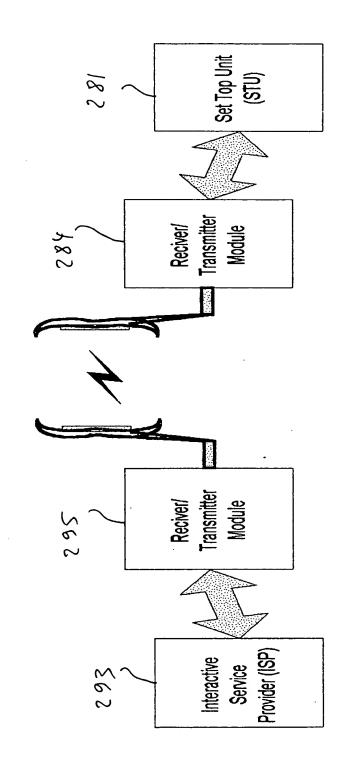


Fig. 1

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# DownLink - DVBT

UpLink - In Band OFDMA/TDMA



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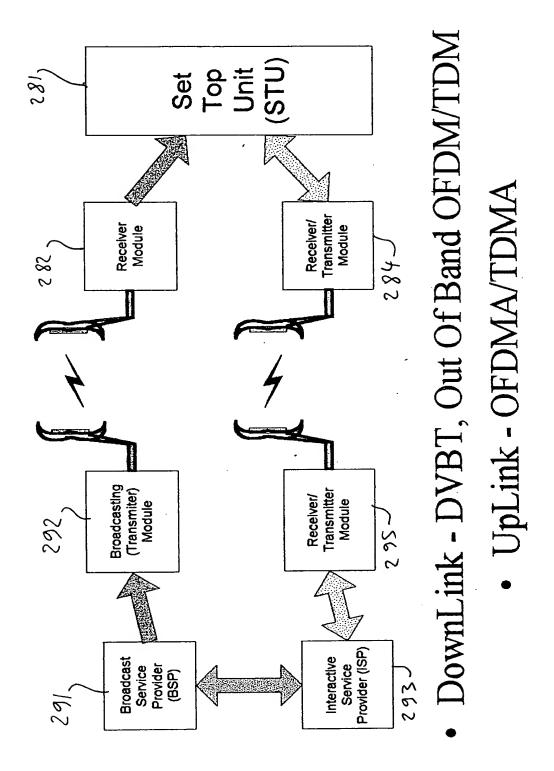


Fig. 3

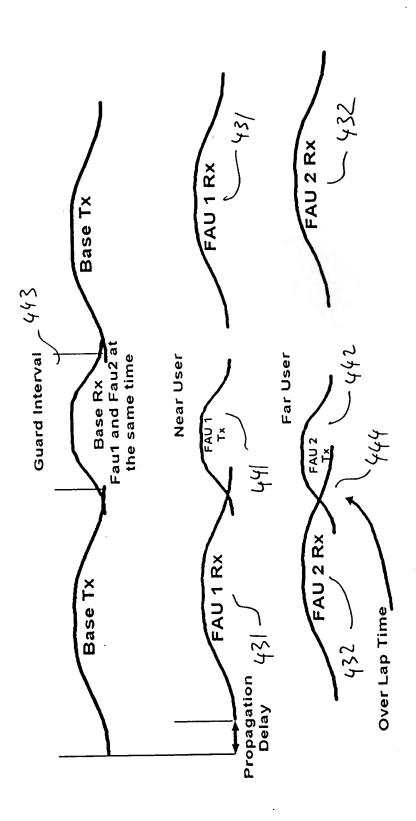


Fig. 4

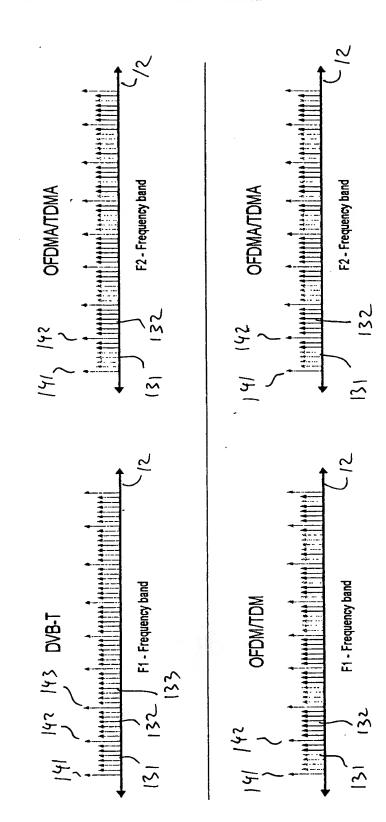


Fig. 5

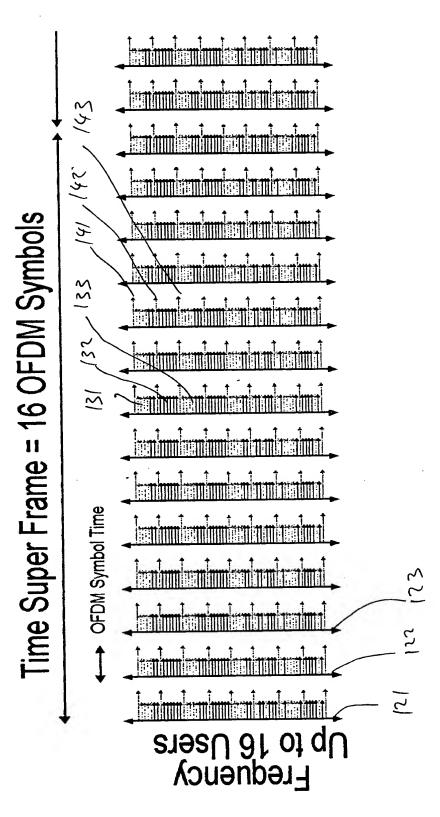


Fig. 6

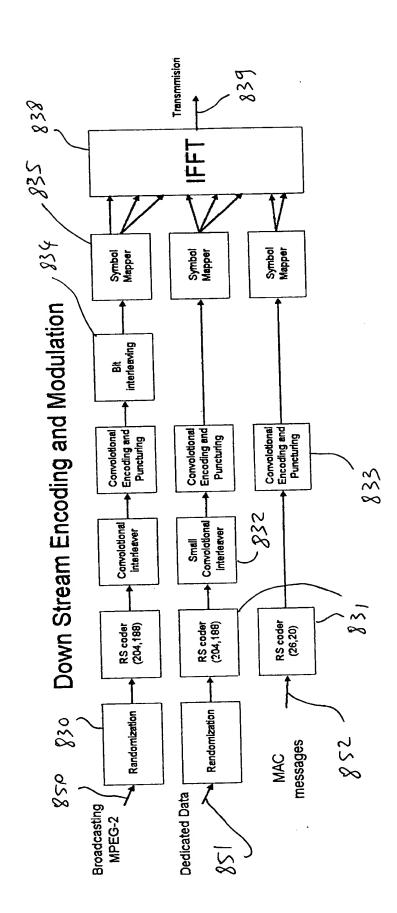


Fig. 7

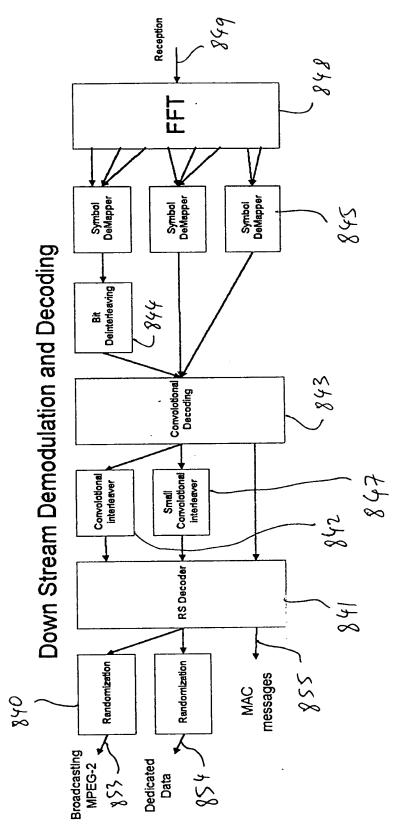


Fig. 8

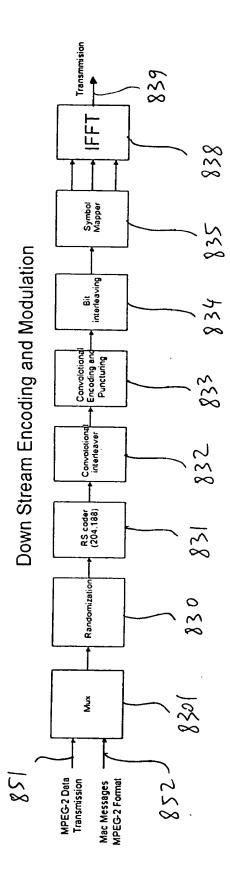


Fig. 9



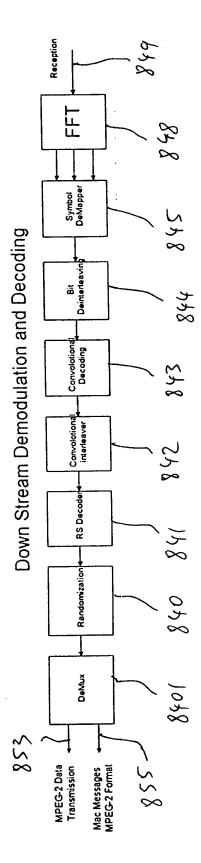


Fig. 10

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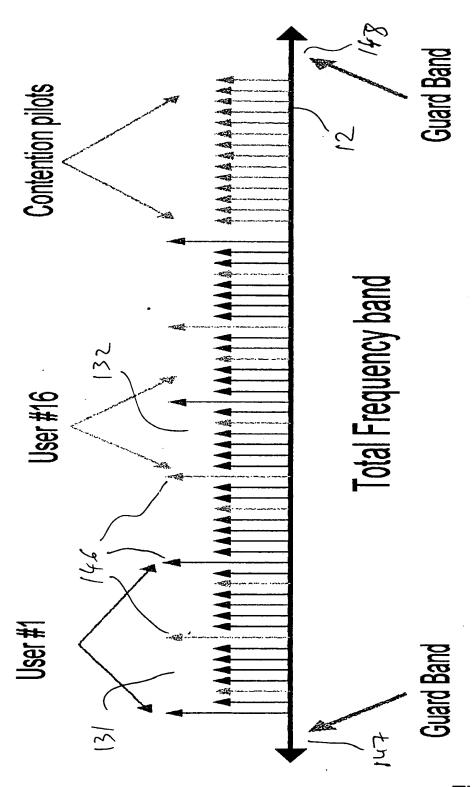


Fig. 11

### Sheet 12 of 48 Dr. Zion Hadad

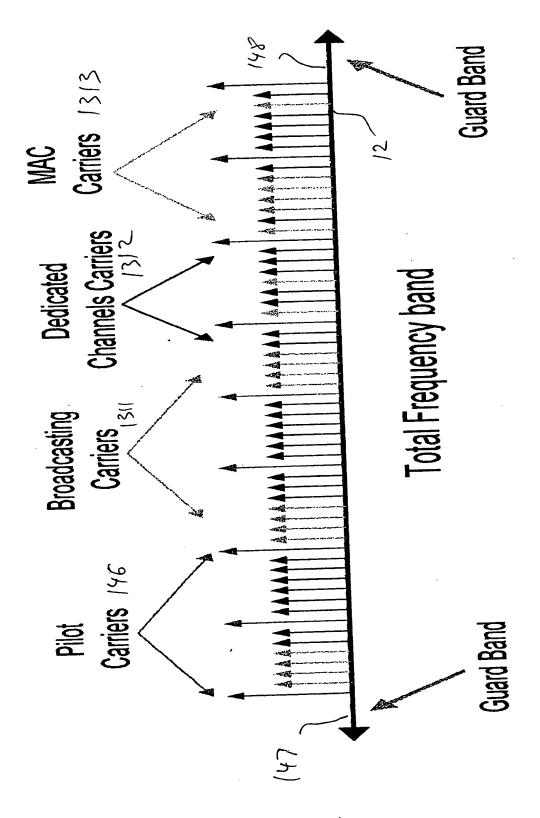


Fig. 12

## Narrowband Interference Rejection

- User SubCarriers Blocks are Allocated by IFFT & FFT
- Easy to Avoid/Reject Narrowband Dominant Interference.
- Less Interfered Part of the Carrier Can Still Be Used.

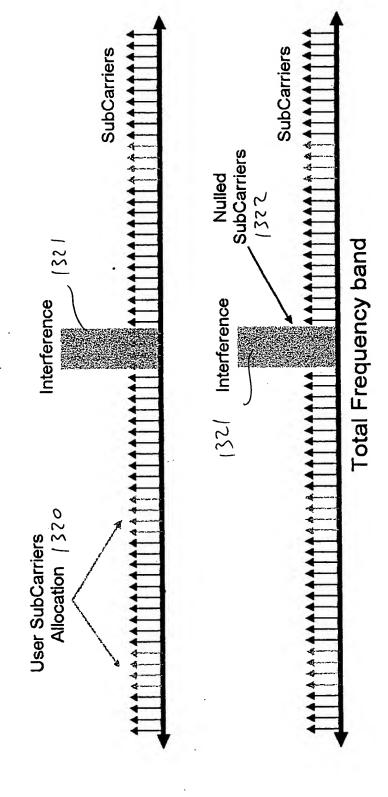


Fig. 13

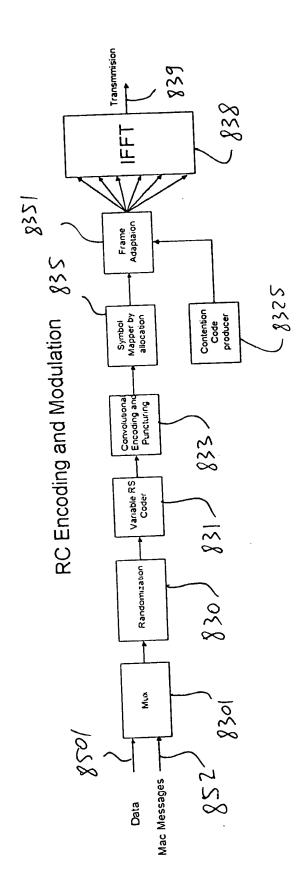


Fig. 14



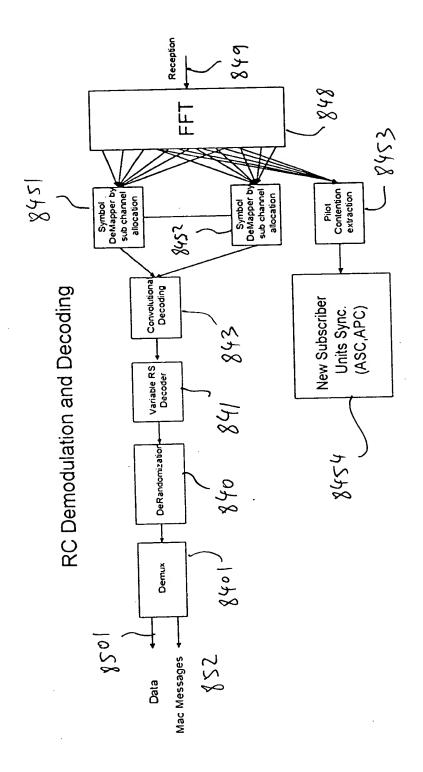
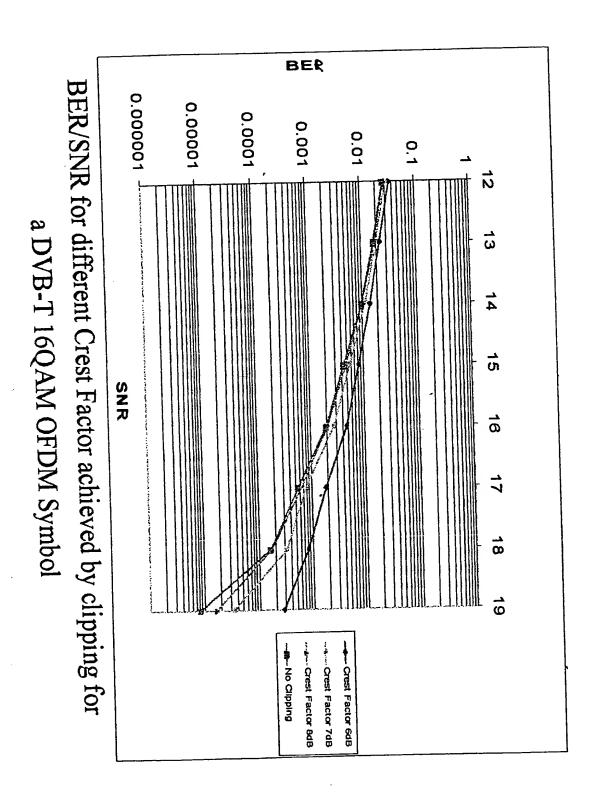


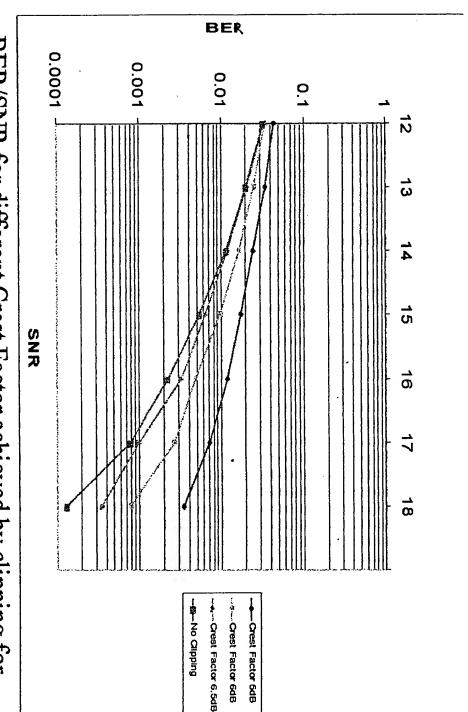
Fig. 15

Fig. 16

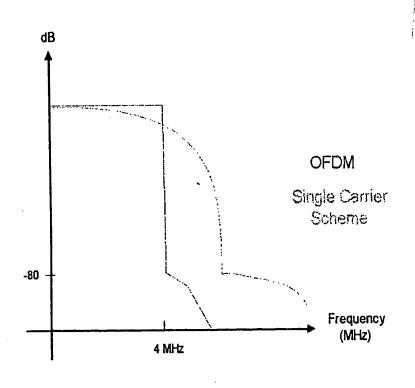


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BER/SNR for different Crest Factor achieved by clipping for an Up Stream 16QAM OFDM Symbol

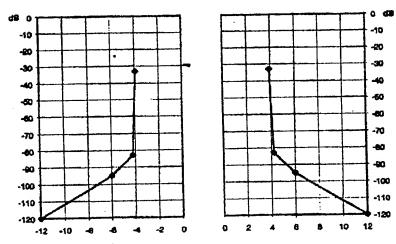


- Rectangular Spectrum Shape (Brick Wall)
- Small Frequency Guard band



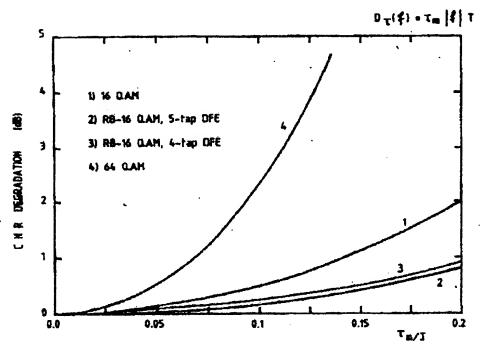
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Power level measured in a 4 kHz bandwidth, where 0 dB corresponds to the total output power



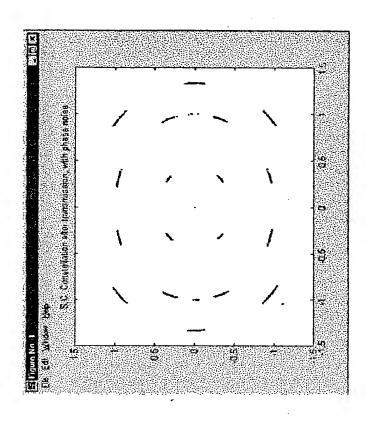
Frequency relative to centre of DVB-T channel (MHz)

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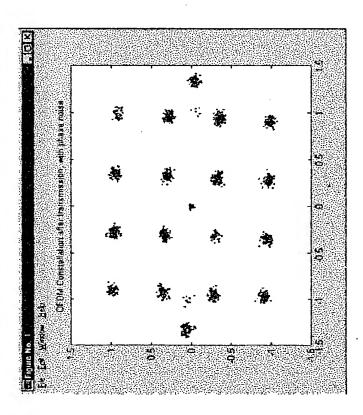


Influence of linear group-delay distortion on the performance of the three modulation schemes.

Fig. 20







### Phase Noise Effect on OFDM

Fig. 21

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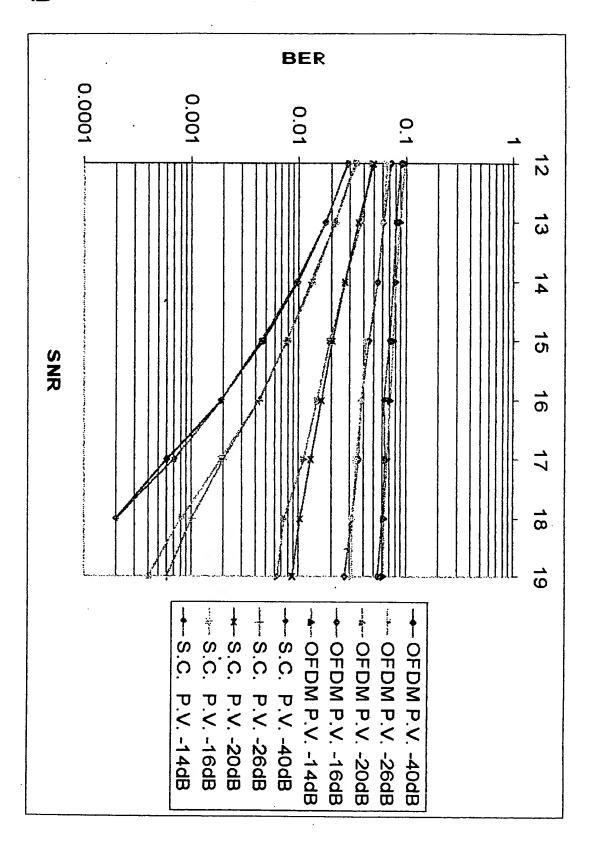


Fig. 22



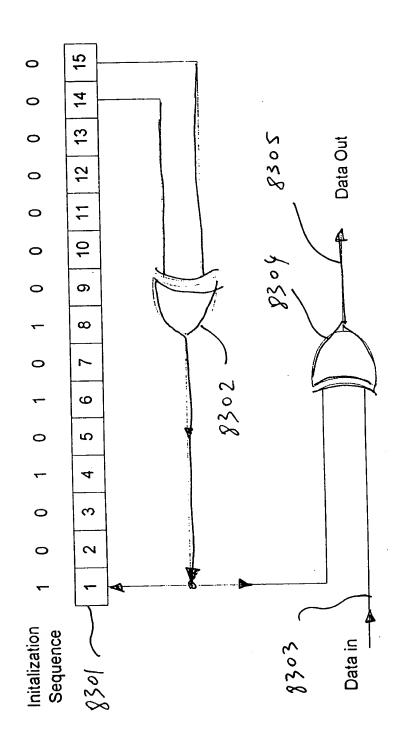


Fig. 23



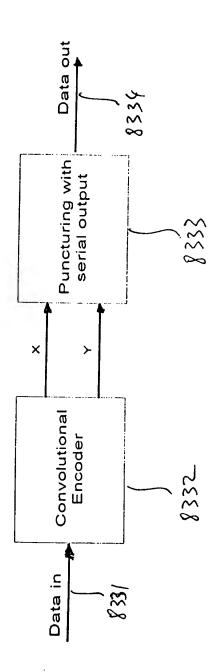


Fig. 24

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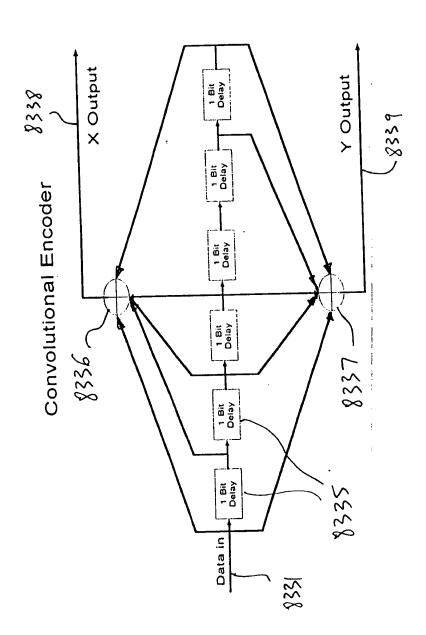


Fig. 25

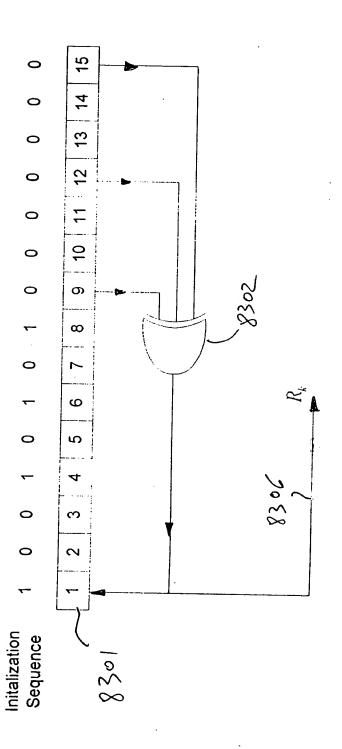
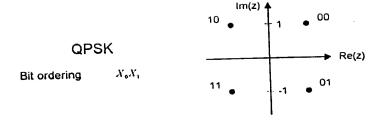


Fig. 26



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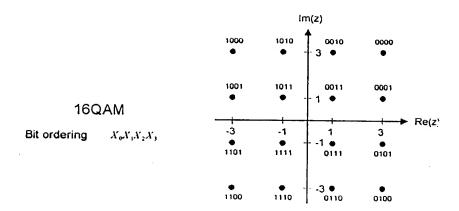
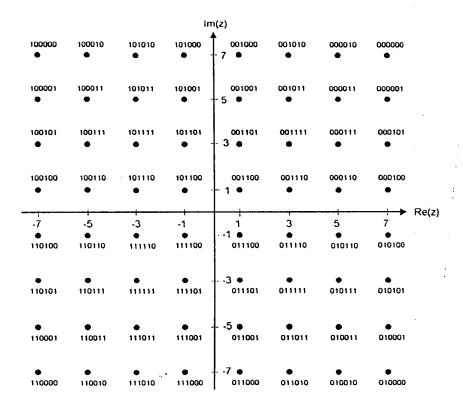


Fig. 28

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64QAM Bit ordering  $X_aX_iX_2X_3X_4X_4X_5$ 

Fig. 29

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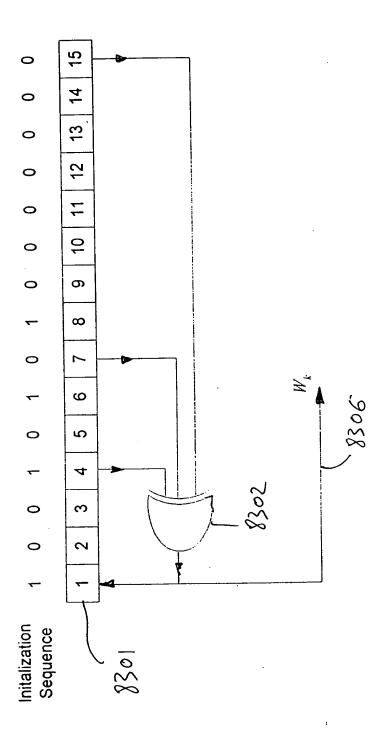
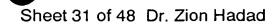


Fig. 30



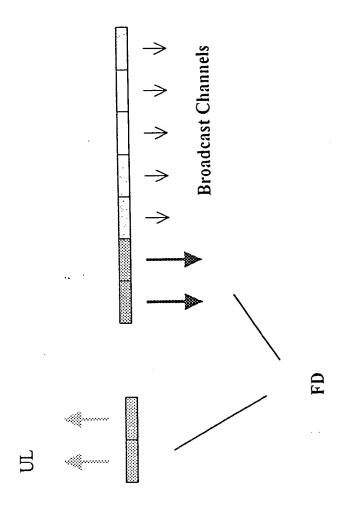


Fig. 31

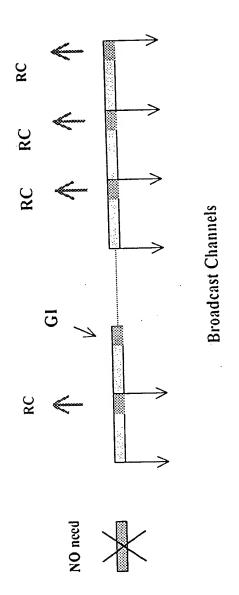


Fig. 32

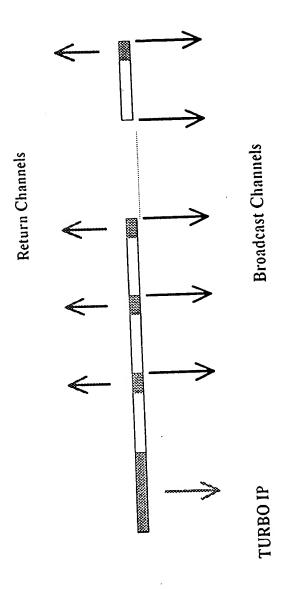


Fig. 33



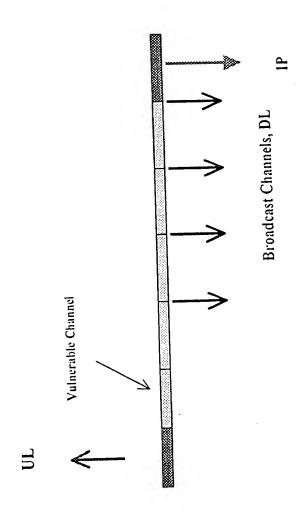


Fig. 34

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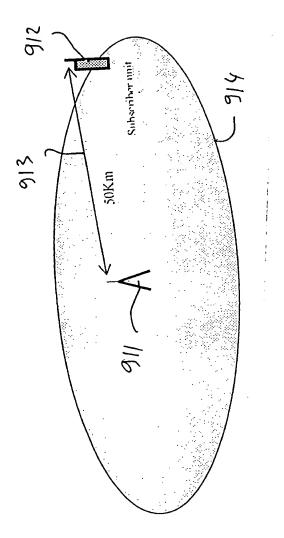


Fig. 35



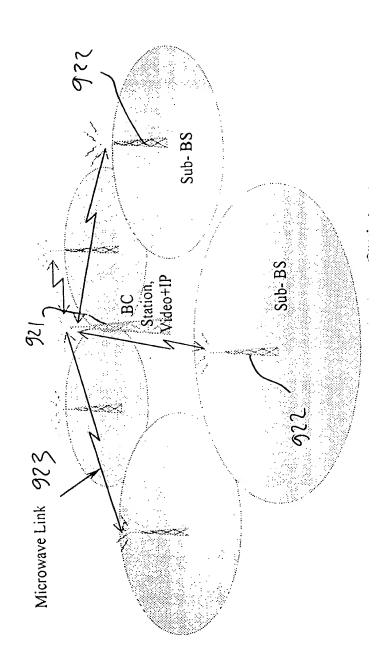


Fig. 36

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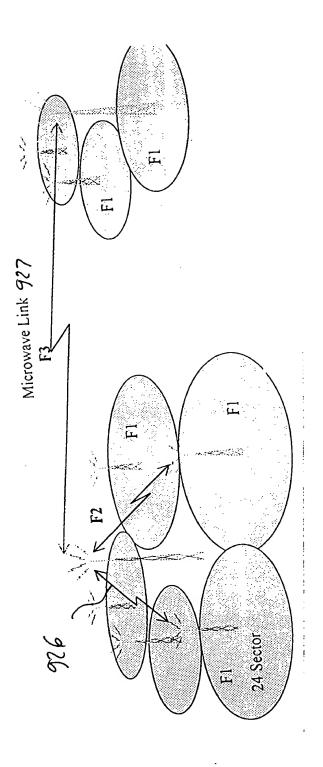
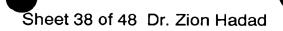


Fig. 37



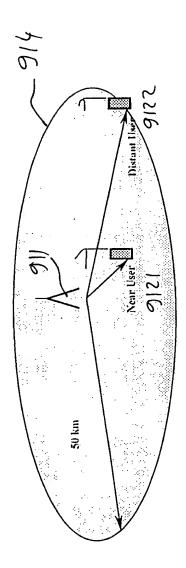


Fig. 38

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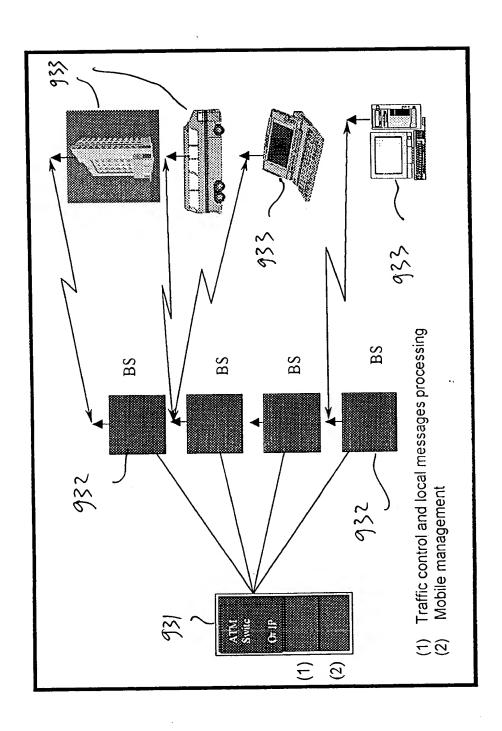


Fig. 39

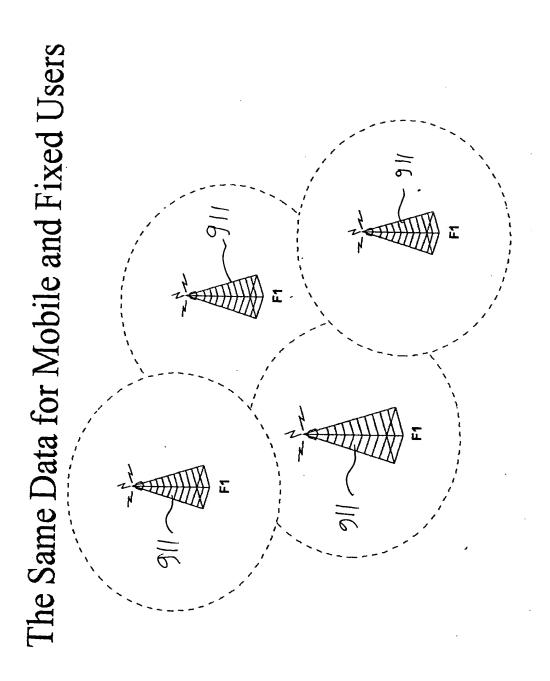


Fig. 40

Where There is a Problem of Coverage, Smaller Cells are Used The Same Data for Mobile and Fixed Users

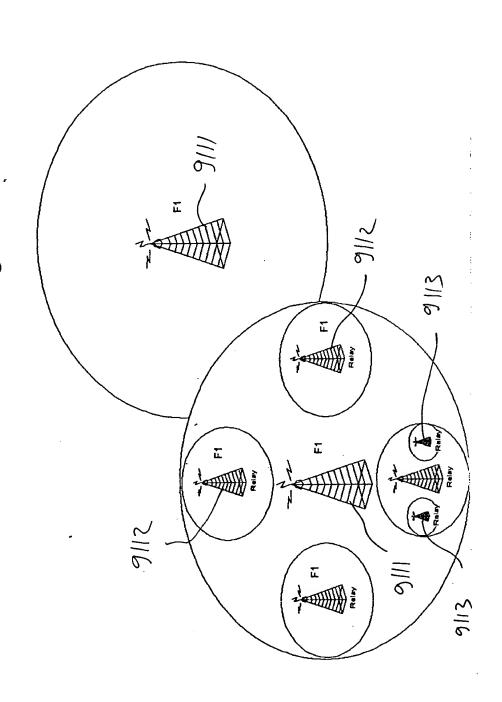


Fig. 41

- Users Transmission can be Received by some B.S., While the main B.S. - Each SFN Enables the Users to Receive Transmissions From Any B.S.

can use MRC

SFN2 9113 Ξ 1 SFN1 i i

Fig. 42

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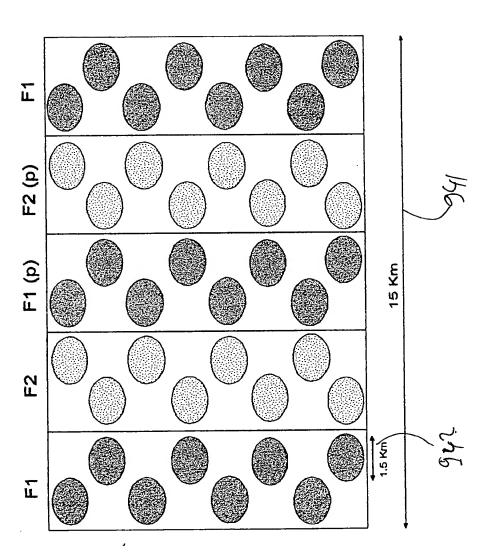


Fig. 43

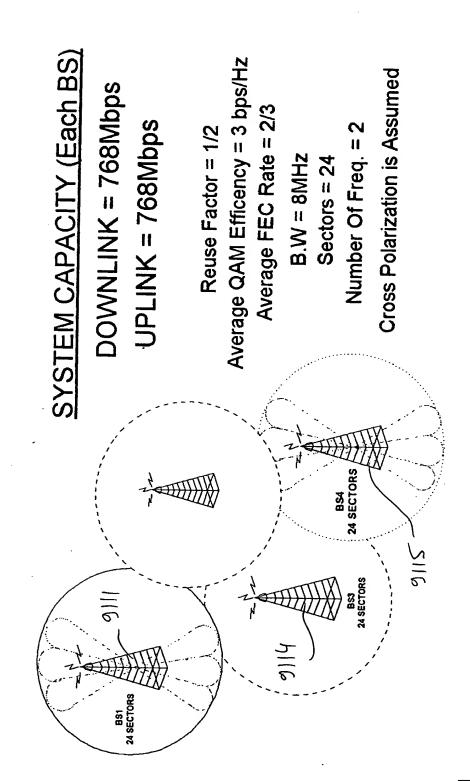


Fig. 44

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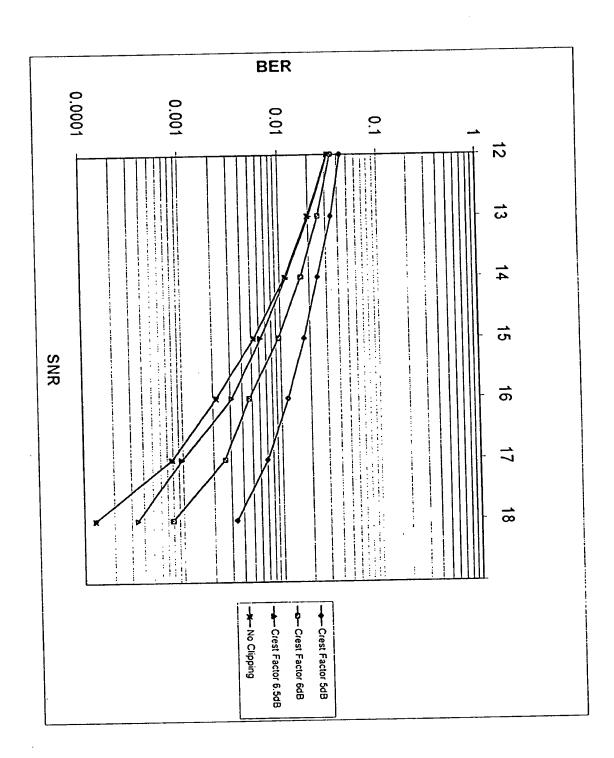


Fig. 45

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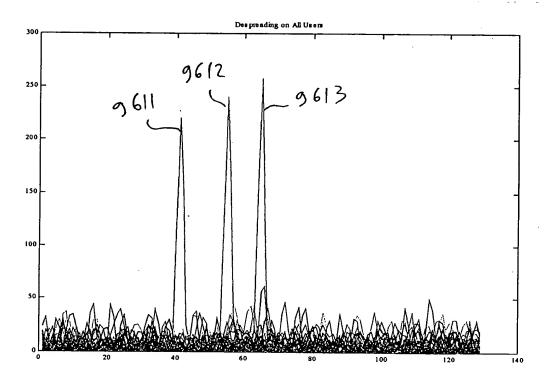


Fig. 46

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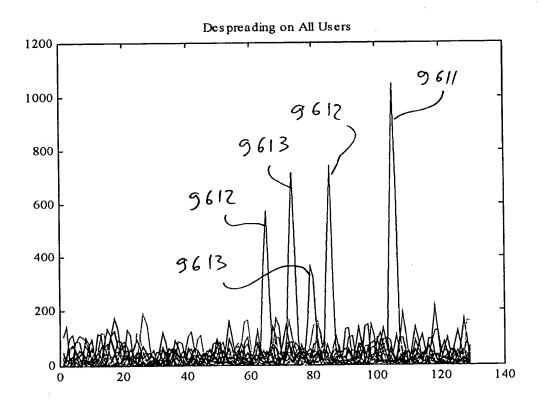


Fig. 47

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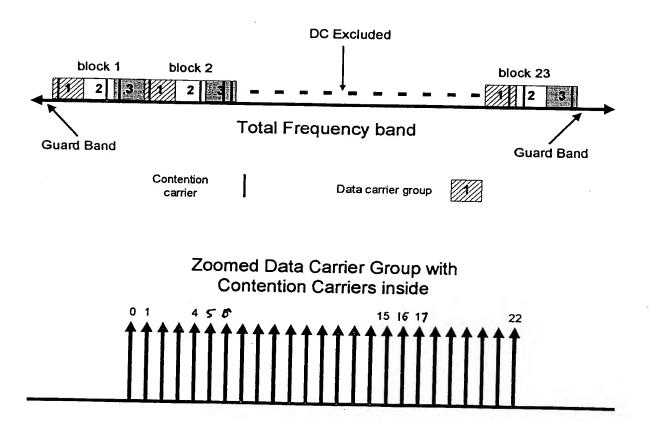


Fig. 48